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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,261	09/30/2000	Tony Hamilton	80398.P319	2092

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EXAMINER	
WANG, ALBERT C	
ART UNIT	**PAPER NUMBER**
2185	

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/677,261	HAMILTON, TONY	
	Examiner	Art Unit	
	Albert Wang	2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 September 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-6,8,9,19,21-24,26-28,30-33,35-37,39-42,44 and 45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-6,8,9,19,21-24,26-28,30-33,35-37,39-42,44 and 45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This Office Action is in response to Amendment A filed September 8, 2003. Applicant's arguments with respect to claims 1, 3-6, 8, 9, 19, 21-24, 26-28, 30-33, 35-37, 39-42, 44, and 45 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8, 9, 27, 36, and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "the method of claim 7" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 and 45 recite the limitation "the deep sleep state" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 27 and 36 recite the limitation "the low activity state" and "the deep sleep state" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 3, 5, 6, 9, 19, 21, 23, 24, 27, 28, 30, 32, 33, 36, 37, 39, 41, 42, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evoy, U.S. Patent No. 5,787,294, in

view of Cheung et al., U.S. Patent No. 6,564,329 ("Cheung"), further in view of Sakai, U.S. Patent No. 6,266,776.

As per claim 1, Evoy teaches a method including:

dynamically adjusting, in response to a power management event, a voltage level and clock frequency level (Fig. 6, using programmable frequency generator 12 and programmable power supply 18) provided to a plurality of system components including a microprocessor (Fig. 6, CPU 14 and system components 16).

While Evoy teaches reducing power consumption in a portable computer (Abstract, notebook computer), by providing scalable voltage and frequency to system components (Claim 1) such as memory and system controllers (Claims 8 and 9), Evoy does not expressly teach the system components as system buses. Cheung teaches scaling power consumption in system components such as system buses (Abstract, "the on-chip memory, the memory controller, and the system bus are 'resources'"; Col. 8, lines 57-67, "select frequency of the bus clock"; Col. 6, lines 40-46, "bus clock is passed to the three buses"). At the time of the invention, it would have been obvious to one in the art to apply Cheung's system buses as system components in Evoy's method. A motivation for doing so would have been to improve power conservation by reducing power drain due to yet other system components.

Evoy/Cheung teaches a portable computer that operates from a battery source and inherently operates also from an external power source (Evoy, Col. 1, lines 9-14) but does not expressly teach detecting a power management event in a system that includes a change in a system power between an external power source and a battery source. Sakai teaches detecting change in system power source (Fig. 4, state transitions between S1 and S3; Col. 7, lines 14-61)

and adjusting the performance states of a plurality of system components (Col. 1, lines 24-64). Both Evoy/Cheung and Saito are from the same field of endeavor involving power management. At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Sakai's detecting of power source to Evoy/Cheung's method. The motivation for doing so would have been to adjust power management according to power source (Sakai, Abstract).

As per claim 3, Sakai teaches chipsets as system components (Col. 1, lines 30-33). Cheung teaches a system component driving the system buses (Fig. 3, system clock controller 312).

As per claim 5, Evoy teaches a portable computer with a memory subsystem (Claim 9). Though Evoy is silent with regards to a graphics subsystem, a graphics subsystem is an integral part of portable computers and necessary for the user interface (Col. 1, lines 9-14, notebook computer inherently has graphics display).

As per claim 6, Evoy teaches adjusting performance states of the plurality of components between a high level and a low level (Figs. 3 & 4, power use varies between zero and a hundred percent).

As per claim 9, Sakai teaches a deep sleep state (Col. 1, lines 24-64).

As per claims 19, 21, 23, 24, 27, since Evoy/Cheung/Sakai teaches the method of claims 1, 3, 5, 6, and 9, the combination teaches the claimed system.

As per claims 28, 30, 32, 33, and 36, since Evoy/Cheung/Sakai teaches the method of claims 1, 3, 5, 6, and 9, the combination teaches the claimed apparatus.

As per claims 37, 39, 41, 42, and 45, since Evoy/Cheung/Sakai teaches the method of claims 1, 3, 5, 6, and 9, the combination teaches the claimed medium.

4. Claims 4, 22, 31, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evoy/Cheung/Sakai as applied to claims 1, 19, 28, and 37 above, and further in view of Shu et al., U.S. Patent No. 5,457,407 ("Shu").

As per claim 4, while Sakai teaches chipsets as system components (Col. 1, lines 30-33) and Evoy/Cheung/Sakai teaches reducing power consumption due to system components, the combination does not expressly teach adjusting a chipset buffer strength. Shu teaches adjusting the buffer strength of an output buffer (Abstract). At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Shu's adjusting of buffer strength to Evoy/Cheung/Sakai's method. A motivation for doing so would have been to implement impedance matching (Abstract).

As per claims 22, 31, and 40, since Evoy/Cheung/Sakai/Shu teaches the method of claim 4, the combination teaches the claimed system, apparatus and medium.

5. Claims 8, 26, 35, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evoy/Cheung/Sakai as applied to claims 1, 6, 19, 24, 28, 33, and 37 above, and further in view of Melo et al., U.S. Patent No. 6,040,845.

As per claim 8 (interpreted to be dependent on claim 6), Evoy/Cheung/Sakai does not expressly teach adjusting the performance state of a graphics subsystem by selecting one predetermined level from two predetermined AGP Specification graphics performance levels. Evoy does teach adjusting the performance level of a system component (Fig. 6) but does not teach the specifics of a graphics subsystem. Melo teaches a graphics subsystem (Fig. 1) and teaches graphics performance levels (Abstract, high and low power states). At the time of the invention, it would have been obvious to one of ordinary skill in the art to apply Melo's graphics

subsystem to the Evoy/Cheung/Sakai's method, in order to ensure the integrity of the method when it is applied to graphics subsystems.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert Wang whose telephone number is 703-305-5385. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 703-305-9717. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

aw
October 24, 2003

THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100